

## ABSTRACT

A system and method for dispensing pico-liter amounts of fluid through a mechanical nozzle using a magnetostrictive device that changes dimensions under an applied magnetic field. This  
5 device, with the possible help of a bias magnet, can be used to open and close the end of a fluid dispensing nozzle. An X-Y positioner can position a slide beneath the nozzle to produce a micro-array of fluid spots. The magnetostrictive nozzle can dispense fluid quantities as low as 50 pico-liters and operate  
10 at a rate of up to 10 kHz.